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ABSTRACT

Issues concerning quality assessment and academic accountability in higher education are considered, with a focus on the use of assessment as a tool for curriculum reform through program and institutional evaluation processes. For the following types of assessment, attention is directed to the scope and purposes of assessment, the instruments being used, costs (if known), and some examples of institutions or sytems using the approach: value-added assessment, competency-based curricula and assessment programs, general education curriculum assessments, rising junior (for determination of eligibility to take upper division courses or graduation from two-year programs) and exit exams, follow-up studies of graduates and dropouts, program reviews, indicators of stress, and system effectiveness. Seven assessment strategies that might be adopted by state boards are identified, including to: provide financial rewards for conducting an assessment, establish competitive grant programs for colleges seeking to improve instruction through assessment, seek legislative support for a faculty development program to improve the use of assessment and study of the teaching/learning process, and sponsor statewide forums about quality assessment. (SW)

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Assessment and the Variety of its Forms

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A Report prepared for the Task Force on Planning and Quality Assessment of the South Carolina Commission on Higher Education

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Assessment and the Variety of its Forms

Preface

"They (the Americans) have all a lively faith in the perfectibility of man, they judge that the diffusion of knowledge must necessarily be advantageous and the consequences of ignorance fatal; they all consider society as a body in a state of improvement, humanity as a changing scene, in which nothing is, or ought to be, permanent; and they admit that what appears to be good may be superseded by something better tomorrow.

Alexis de Tocqueville,
Democracy in America, 1835

We are inveterate reformers in America. Never satisfied, always tinkering, we search for a better way, a "new" way. We hope for, and work for, progress and growth - in size, in quality, in scope. While this reforming impulse creates tensions and insecurities, it is inherently a healthy process. We analyze, and quantify, examine and evaluate, in order to know and to understand and most importantly to change and to grow. Whatever our views on "outcomes measurement," "assessment", and "testing," this process of evaluation should encourage us. The concern for quality by those outside the academy — state board members, legislators, governors — should not threaten those inside the academy. No greater tribute can be paid to the power and faith we place in education as an instrument of social advancement than this call for "academic accountability."

Why Assessment Now?

"Quality" without a doubt is the central concern of higher education in the 1980's. It is a word which has taken on a larger than life meaning and in the process has become even less precisely understood than in the past. "Quality Improvement" has come to mean in some states a range of reforms relating to the undergraduate curriculum; in others to economic development initiatives and the improvement of the applied research function of universities; in still others it means improving faculty salaries and upgrading instructional and research equipment and facilities.

Predominant among the reforms may be those aimed at improving undergraduate education. A series of reports have accused institutions and faculties of fragmenting the curriculum and threatening the integrity of the degree. These reports have lead to calls for strengthened entrance and exit standards and directly to the subject of this report — namely "quality assessment."

The simple answer to the question, "Why Assessment?" has been "to demonstrate our accountability." But why accountability on learning outcomes when in earlier periods the public settled for what in retrospect was far less problematic - namely fiscal accountability? The reasons are many, not the least of which is anxiety over our economic competitiveness with Japan, which has a much more structured school curriculum than is found in the United States. But of greater importance is a change in attitude about the relative merits of pluralism versus cultural cohesiveness. Diane Ravitch has stated it most directly:

> "We have lost . . . any sense of what everyone should know. It's almost impossible to get people together on the question what an educated person should know at the age of 18 or 21 or 30 or any age. We're so enthralled with the idea of cultural pluralism that almost any statement about what a child should learn becomes a political statement."

> "A culture has to have a center. There has to be some agreement about "this is what it means to be an American;" these are the things we care about and want to transmit across the generations. That center is fragmented I think. We're not going to have an sense of an American culture unless we can describe it. Define it. Teach it." (Green, 1985, p. 17.)

Such a view is in direct conflict with the predominant mode of undergraduate curriculum which has sought to accommodate a variety of interests and interest groups through a fairly liberal elective system. It is also in conflict with the specialization and professionalization that dominates the American university. Any would-be assessment project will be faced in one degree or another with the difficult task of definition of a core of knowledge. It will also run the danger of simplification, best exemplified in the compulsion to quantify, often in a single number the "quality quotient" of the system, the institution, and the individual learner.

Along with these economic pressures and changes in cultural attitudes has come a certain dissatisfaction from within higher education over our traditional measures of quality. Evaluations based on reputations and levels of support have become suspect while the new outcomes measures - test scores or employment rates — are in favor. Institutions are also experimenting with the concept of "value-added." Rather than answering the question, "How smart are our students?" they are trying to answer the more difficult question, "How much value are we adding to those students we have?"

The public reaction to academic practices with college athletes — students often admitted in exception to normal admissions rules and exploited for purposes of financial gain by institutions — have brought great public reaction which is spilling over to the institution as a whole.

Finally, and possibly most powerfully, reformers within higher education who are dissatisfied with the lack of attention given the teaching and learning functions of colleges and universities are seizing upon the new interest in assessment as a tool for reform. The instruments and results are less important than the act of evaluation. These reformers sometimes seek any weapon regardless of its validity, in order to leverage change.

Assessment is inherently threatening to many within colleges and universities — and not without its dangers and pitfalls. Pressures for academic accountability may cause resentment among faculty and discouragement among students. And we may be misled by our indicators. They may tell us that educational progress is taking place when, in fact, it is not. Or our indicators may not find quality where in fact it exists. In our desire to clean up college athletics we may create solutions bigger than the problem. Our desire to know how well the "system" is functioning may blur the fact that the transmission of knowledge always takes place between a particular student and teacher and never between abstractions like "institution" and "students." Finally, and most damaging, the seduction of single measures of quality may obscure the reality of the multiplicity of its dimensions.

There is little doubt, however, that assessment and evaluation can have many positive effects. The concern for student performance has changed the context of the debate in higher education dramatically. Faculty members and departments that felt little responsibility for developing common program objectives or for monitoring the effects of their teaching are now doing so. A new level of accountability and academic competitiveness is being felt around the country. To borrow a phrase from a recent report on quality improvement, assessment is a "lever for change" in higher education.

It is this aspect of assessment — its use as a tool for curriculum reform through program and institutional evaluation processes — upon which I will concentrate in this paper. (Assessment as a tool for admissions, placement and remediation is closely related to this topic but will be excluded since it is being reviewed by other authors working on the South Carolina Commission's Task Force reports.)

In each of the types of assessment described below I will review the scope and purposes of assessment, the instruments being used, the costs, if known, and some examples of institutions or systems using the approach.

Value-added Assessment

"Value-added," as a term applied to higher education, first entered the language through the work of Alexander Astin who has had a long and abiding opposition to the predominant classification of the status and quality of institutions on the basis of their admissions practices and the level of their resources. To Astin and other critics, it is difficult to understand why we heap such praise and rewards on colleges and universities which have the easiest job —that is, teaching students who are so bright they practically educate themselves. The institutions which should be rewarded, they argue, are those which add value, not merely capitalize on their selectivity.

A few institutions — most notably Northeast Missouri State University — have attempted to operationalize this concept through a pre-test and post-test research design. (Northeast Missouri, 1985) Score gains can then be compared across departments and institutions and longitudinally within the same department or institution. Typically, institutions conducting value added testing use instruments such as the ACT Assessment and the ACT comp exam at the beginning of the freshman year and then as post-tests at

the end of the sophomore year. This testing program is often combined with the testing of graduating seniors on such instruments as the GRE subject area exams and professional licensing exams (for example the exam of the American Institute of Certified Public Accountants). Other institutions using a similar design include the University of Tennessee, Knoxville, the public colleges and universities of South Dakota, and Southwest Texas State University.

Like most such research in the social sciences, these value-added research designs are flawed, at least in their ability to actually attribute the changes measured to the scores observed. Maturation or learning outside the curriculum might well account for much of the score gains. (To truly know whether an institution is adding value would require a random placement of 18 year-olds in an "experimental" program [college] and a control group [no college] — obviously not feasible). Inter-institutional or interdepartmental comparisons are also problematic because of the low number of institutions conducting such testing, as well as the significant differences in curriculum and emphasis on the items being tested.

Nevertheless, the institutions practicing value-added testing are enthusiastic. Observers report that some departments initially resistant to the idea of value-added testing have used the test results to make significant changes in the content and sequencing of their curriculum. Tennessee Technological University, for example, gave considerable more emphasis to writing after some of their initial assessments. Academic vice presidents and deans are often supportive because the test results have provided them with some concrete basis for implementing changes which they have long sought. In these cases the actual results or comparisons are far less important than the act of evaluation itself.

Cost estimates vary. Northern State College in South Dakota charges a $.35 per credit hour "testing surcharge" to cover the direct costs of its testing. Overhead costs absorbed by the testing center and the cost of proctors and faculty development time are usually not estimated. If new instruments are developed, costs may go up substantially unless this is assumed as part of the normal workload of faculty. Peter Ewell and Dennis Jones (n.d.) estimate that the annual cost of a value-added assessment using such instruments as the ACT-COMP exam could range from about a $123,000 in a major research university to $33,000 in smaller regional institutions.

"Competency-Based" Curriculums and Assessment Programs

Alverno College, a small private liberal arts college in Milwaukee, Wisconsin, may be in a class by itself when it comes to assessment. Assessment has a much broader meaning at Alverno than in other institutions. Sister Joel, the outspoken president of Alverno is quick to point out to would-be assessors that the Greek root of the word assessment means literally "to sit down beside." The image that comes to mind is of the piano teacher on the bench beside her student. Learning, performance, and feedback take place in an integrated almost simultaneous fashion. Assessment at Alverno comes closest to this fully integrated model which has been the hallmark of a small but growing group of devotees to competency-based curriculum. The institution's catalogue and course syllabi are far more specific in their behavioral and performance objectives than most educators are accustomed to seeing. While standardized exams and paper and pencil tests are used in the assessment process at Alverno they are only one of several tools employed. The objective of assessment is centered on the individual learner as opposed to evaluation of programs, institution or faculty. Feedback on performance is a continuing part of a student's learning experience; and the proper use of assessment is an important part of faculty development programs. Typical of the the performance-based

assessment tools is the "inbasket" exercise often used in the corporate sector in training and evaluating managers. (Students respond to an inbasket of correspondence and are evaluated on their oral presentation and decision-making by a panel.) Alverno also relies heavily on external evaluators of its students — usually alumni working in the profession for which the student is training. The institution also places substantial emphasis on writing as demonstrable evidence of learning.

It is difficult to estimate the costs of assessment at Alverno because of its close integration with the the total curriculum and student experience. Alverno budgets two percent annually for program evaluation. (For further information see Alverno College, 1985 and Loacker et. al., 1985.)

General Education Curriculum Assessments

Several campuses in recent years have undertaken comprehensive evaluations of the general education curriculum in order to strengthen the baccalaureate degree. Western Carolina University in the early 1980s established a set of common goals for courses which would be included in the general education curricula. Faculty wishing to have their course qualify as part of this core curriculum present proposals to an institution-wide curriculum committee. Many institutions conducting general education evaluations have instituted "writing across the curriculum" initiatives aimed at increasing the use of writing in all courses including the physical sciences. Writing across the curriculum programs put a heavy emphasis on faculty development — one of the most neglected issues in this debate over assessment. (It is the rare faculty member who has received any systematic training on how to provide constructive feedback to students or how to devise an effective assessment instrument for use in the classroom.)

Rising Junior and Exit Exams

Unlike the other assessment approaches discussed in this paper, rising junior and exit exams are usually standardized testing instruments used for purposes of student progression. Rising junior exams determine eligibility to take upper division courses or graduation from two year programs. Exit exams from baccalaureate programs gained widespread use first in the field of teacher education and are now being considered by some states and institutions for all students. Comprehensive senior exams at the departmental level have long been popular in the private colleges but have not been widely used in the public sector. While rising junior and exit exams are used primarily for student evaluations, they have also been used for program and institutional assessments as well. For example, the University System of Georgia has indicated that high failure rates of teacher education students on the National Teachers Exam would be cause for possible termination of the program from which the student came. The Mississippi Board of Regents plans to use similar criteria.

The most notable statewide rising junior exam is the Florida CLAST exam used in both public four year and two year institutions. It is a minimum competency exam developed by the Florida State Department of Education. (For further discussion of the CLAST exam see Harrington, 1986.)

Southwest Texas State University will begin testing of sophomores in the area of English composition in the Fall of 1986. Students will have two opportunities to pass the exam. The institution will use the CLEP General examination in English composition (with essay) developed and scored by the Educational Testing Service. Direct costs of the exam ($30) will be paid by the student.

The use of a math exam at Southwest Texas State has been postponed primarily because of disagreements over what constitutes "college-level math skills." While the institution is attempting to go beyond the minimum competency approach of Florida, it has not yet resolved what level of mathematics should be required of all sophomores — namely how much college-level algebra should be a required competency for sophomores.

Follow-up Studies of Graduates and Dropouts

The use of surveys of graduates and dropouts continues to grow in popularity among institutions, schools and departments. It is one of the most effective means, for example, of determining how well the curriculum relates to employability. The results of these follow-up studies have not been widely disseminated, however, and thus have not been effectively used as an accountability instrument. The State Council of Higher Education for Virginia, in its recent investigation of whether or not new assessment instruments were needed in that state, found a substantial amount of institutional activity already taking place. Many community colleges, for example, were monitoring both the employability of their graduates as well as their success in transferring to two-year institutions. Among four-year institutions the Council found the most substantial effort at Virginia Polytechnic Institute and State University (VPI). Individual departments in other institutions were also making significant efforts, although the results were seldom disseminated widely (State Council of Higher Education for Virginia, 1985).

At the state level, the Maryland State Board of Education conducts one of the most comprehensive student follow-up studies in the nation (State Board for Higher Education, November 1984).

Retention and dropout studies are more difficult than following graduates. Tracking down dropouts is more expensive than tracking graduates, and their motivation to respond to questionnaires is less. A simple problem such as defining a dropout rate can become a subject of heated debate. Institutions may also disagree on whether or not high dropout rates are a significant problem — believing that many students "stop out" of community colleges and urban institutions not for academic reasons or dissatisfaction with the curriculum but because they have met their more limited goals.

Such arguments should not preclude systematic examination of the retention/dropout issue, including some common agreement in a set of definitions for measuring rates of graduation and attrition. This will permit valuable inter-institutional and inter-departmental comparisons.

Strengthening Existing Program Reviews with More Quality Assessment and Outcome Measurement

Program review, whether in the form of periodic accreditation reviews, campus-based reviews, or state or system-level reviews, is not new to higher education. But as the issues change so should the reviews. Program review initiatives begun in the 1970s often had as their primary concerns such issues as duplication, need and cost. Targeted first were expensive, low enrollment graduate programs.

The focus has shifted in the 1980s to concerns about baccalaureate programs and a desire to use more outcome measurements than resource criteria.

Following an evaluation of the "quality assessment" issue similar to that now being undertaken in South Carolina, the Rhode Island Office of Higher Education (which serves as staff to the Board of Governors) made recommendations for a strengthened program review process for the state's senior institutions.

In summary they concluded that:

> 1) direct observation of academic programs was preferred to "symptomatic" evaluations (e.g. reputational rankings and other quantifiable indicators). 2) value added learning evaluations were "expensive to start, difficult to maintain, and require a significant lag-time between the initiation of the process and the arrival of usable results" (Rhode Island Office of Higher Education, 1986).

Rather than implement a statewide program of testing they called upon each institution to establish both a program and institutional review process.

Accreditation review could be substituted for internal reviews. A synopsis of the reviews are to be provided to the Office of Higher Education and a subcommittee of the Board will meet periodically with the academic vice presidents to discuss the reviews. Annual reports will be made to the Board of Governors.

As for institutional review the Office of Higher Education recommended that "institutions report every three years to the board on institutional quality focusing on selected quality indicators. Where appropriate a summary of regional accreditation reports will be included."

In its analysis the Office of Higher Education indicated the range of issues with which it was most concerned in this new program review process. The list included concerns about admissions, general education, grading, guidance and advisement, retention and completion, remedial programs, honors programs, follow-up of graduates, student/alumni

satisfaction, standards for nontraditional courses — especially televised courses- faculty development programs, and promotion and tenure standards.

Indicators of Stress

Another method of quality assessment is to use "indicators of stress." This can include both direct measures of stress — often related to resources, as well as proxy measures which may signal qualitative problems. "Tripwires" such as degree productivity have long been used to signal program reviews of cost and productivity. But the same concept could be applied to qualitative assessment. Glenny and Bowen (1984) suggested thirty different warning signals of distress that could lead to quality problems. Their list included such items as the physical environment of the campus, lower admissions standards, percentage of faculty teaching outside their primary specialization, decreasing rates of funding for additional students, encouragement of unselective early retirement, proportion of faculty with overloads and underloads, and faculty salaries increasing disproportionate to total budget (a measure which can signal a lack of academic support, library resources, equipment and other items directly related to quality).

One indirect measure which has received no attention in qualitative assessment has been student loan default rates. Defaults have often been treated simply as a collection management problem, but it may also signal a wide range of academic problems in an institution — for example, an inappropriate admissions policy, a retention problem, or a curriculum which fails to meet students expectations and/or prepare them adequately for employment.

System Effectiveness

If there is such an entity as "institutional effectiveness" as implied by the new accreditation standards of the Southern Association, then we might also conceive of something called "system effectiveness." But it is a difficult abstraction to translate into concrete terms. A set of discrete "indicators" does not immediately come to mind. (Certainly it is something different than the sum of the aspirations of individual campuses.)

System effectiveness might be conceived in terms of the "match" or "mismatch" between what the "public" wants and what the institutions offer. There are many publics of course in a state, but the most important in the affairs of public higher education are those holding elected office.

The best and most appropriate "assessment" of system effectiveness by a state or system board is to listen closely to the articulated public needs of the state and see if the "system" is meeting those needs. This "listening" can take place in both formal and informal ways. Informal listening is best exemplified by a close working relationship between the staff of the board and elected officials and other state agencies. This can be supplemented with more formal processes, including public hearings, surveys, and the kind of self-evaluation that the South Carolina Commission has undertaken.

There are, of course, constituencies which are often not heard very well and the state board's job should be to listen especially close to those voices. Generally, the interests and concerns of the "consumer" are not well-represented in the field of higher education; nor that of minorities or working class Americans in general. Non-college-bound youth, especially, seemed to be neglected in our debates over postsecondary education and training.

One of the most difficult and problematic limitations on "system effectiveness" has been duplication of effort. This is usually not a question of "too much education" but rather the wrong kind of education. For example, a soon to be released report by the Education Commission of the States (Transforming the State Role in Undergraduate Education, 1986) suggests that too few public institutions have taken on undergraduate education as their primary role and mission. The report offers a variety of ways in which the states might promote undergraduate education as a priority.

Certainly remedial education is another mission in higher education that nobody seems to want. Yet the needs of the population — both in and out of formal schooling — is substantial in this arena.

System effectiveness, then, is not a matter of measurement of a constant, but the overall assessment of a changing dynamic — namely the fit between what collectively is being done and what collectively needs to be done.

Assessment Strategies and Some Options for Your Consideration

Peter Ewell has posed four questions that need to be answered about an assessment initiative before it is begun (Ewell, 1986).

1. What is the basic purpose of assessment? (For example, the establishment of an admissions-placement policy or a review of academic programs?)
2. Who is to be assessed? (Is it to be individual students, faculty or organizational units?)
3. What methods are to be used in assessment? (Standardized exams, surveys, oral interview, observation of performance, etc.)

4. Who controls and operates the assessment process? (Most importantly how centralized or decentralized is the process and decision-making about content and form?)

State boards have a range of strategies open to them. Their solutions are dictated by a combination of their political mandate, their formal statutory responsibilities, their view of which constituents they serve, and their perception of the magnitude of the "problem."

For example state boards can:

1. Provide financial rewards for the conduct of assessment. (The instructional evaluation program of the Tennessee Higher Education Commission provides support for conducting value-added testing, follow-up surveys of graduates, and other assessment and evaluation activities).

2. Establish competitive grant programs to provide small grants to institutions and faculty seeking to improve instruction through assessment. (The Virginia Council administers a small grants program which currently focuses on quality improvement, especially in the instructional arena).

3. Seek legislative support for a faculty development program to improve the use of assessment and the study of the teaching/learning process. (While many institutions have funded their own faculty development programs, few legislatures have provided explicit support.)

4. Set the framework for program review and ask institutions to report periodically to the board on their own internal assessment efforts (similar to what was described in Rhode Island).

5. Sponsor statewide forums about quality assessment and related issues. ("Talks with Faculty" about the nature of the problem could provide state legislators and board members insight into the solution. The Illinois Board of Higher Education through a broadly-based study committee has fostered a variety of institutional and state actions to improve undergraduate education and assessment. See Illinois Board of Higher Education, 1985.)

6. Make institutional assessment a requirement for "full-formula funding recommendation." (The State Council of Higher Education for Virginia concluded that no new statewide assessment initiatives were needed; however, they recommended that institutional assessment be a requirement for a full formula funding. Institutional assessments are expected to take a variety of forms.)

7. Develop a set of "indicators" of quality using common statewide definitions and report these indicators periodically to the public. (In Tennessee, the legislature has called upon the Commission to monitor and report on progress toward some state goals. For example a) graduation rates; b) scores by students in teacher education programs; c) passage rates on professional licensing exams; and d) job placement rates in vocational fields.)

8. Require the use of common standardized assessment instruments which will allow program and institutional comparisons within the state and to national norms over time. (The South Dakota Board of Regents' value-added testing program mentioned earlier uses this approach.)

9. Develop a set of common standards for academic progression which would apply to all students at entry, at the end of the sophomore year and upon graduation. (This approach is best exemplified by the testing program in Florida.)

Concluding Recommendations: Go "Public"; Involve Faculty; Use Multiple Forms

Obviously, state boards cannot enter the sensitive area of assessment without recognizing the primary role of institutions and their faculties in academic affairs. At the same time, state boards have important responsibilities which only they can fulfill, especially in assessing the overall effectiveness of the "system" and encouraging widespread public debate of the issue. They must also consider carefully their public constituents — legislators, parents, and students. The consumer protection responsibilities of state boards in maintaining minimum standards for institutional licensing should include some monitoring of outcomes. But among the most difficult and controversial issues state boards face in quality assessment is the degree to which test scores, evaluations, and other outcomes measures will be made public. My preference is to err on the side of the public — to promote public debate and constructive competition through dissemination of information.

While public accountability is important, it should be done using a multiplicity of measures and with the understanding that progress, or the lack of it, on single measures may be illusory.

Standardized tests are especially popular because of their ready availability and their use in comparative studies. But while they may play a significant role in admissions and placement, they have a far diminished value to individual faculty and departments concerned about improving student feedback and increasing faculty effectiveness. Multiple measures developed and chosen by faculty themselves are necessary if we expect to have any impact on this core function of colleges and universities.

Our conception of the nature of human intelligence also affects the selection and use of our assessment measures. Human intelligence, according to Howard Gardner, the provocative Harvard psychologist and author of Frames of Mind, comes in multiple forms, not in the single form characterized by composite verbal and math scores on tests like the SAT.

To find the answer to the question "How are we doing in higher education?" is far more complicated than we might at first suspect or wish. This makes it no less worth the effort.

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